Attachment J7

Jackson IAP Air National Guard (ANG), Electric Distribution System

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J7.1 Jackson IAP Air National Guard (ANG), Overview

The 172d Airlift Wing is located at Allen C. Thompson Field (Jackson IAP) in Jackson, Mississippi. Thompson Field is in Rankin County, Mississippi. The Air National Guard facility is named after Charles L. Sullivan, the former Lieutenant Governor of Mississippi and long time member and pilot in the 172d. The base covers about 97 acres of land and contains 33 facility buildings.

The 172d Airlift Wing has a primary strategic airlift mission and secondary aerial evacuation mission with their two flying squadrons, the 183d Airlift Squadron and 183d Aeromedical Evacuation Squadron. The C-141B Starlifter is flown by each unit to accomplish these missions. The Wing is complemented by support units including maintenance, logistics, personnel, finance, medical, communications, security police, and civil engineering. The 172d is a component of the 21st Air Force and is ultimately under the Air Mobility Command. The unit has grown from 102 officers and airmen in 1953 to 1,140 today.

In June of 1941, Hawkins Field at Jackson, MS was designated an Army Air Base. The facility was used as a pilot training center through January 1949, at which time it reverted to civilian aviation status.

In 1953, the Mississippi Air National Guard returned to certain facilities at Hawkins Field. The 172d original designation was the 183d Tactical Reconnaissance Squadron. The unit was assigned eighteen B-26 aircraft as well as a few C-47s. In 1957, Six Fairchild C-119 Flying Boxcars replaced the B-26.

In April of 1961, construction of the present ANG base began. In July 1962, the C-121 Lockheed Super Constellation arrived in Jackson. In 1964, the 183d was reorganized and redesignated the 172d Air Transport Group. In 1966, the C-124 Globemaster was assigned to Mississippi Air Guard. In 1967, the 172d flew the 1000th support mission into South Vietnam. In 1969, the ANG responded to the emergency created by Hurricane Camille. Also in 1969, the unit provided maximum force airlift in Southeast Asia.

In 1971, the 172d converted to the C-130E Hercules Aircraft. In 1978, the 172d participated in Operation Volant Oak, an Air Force sponsored deployment to the Panama Canal Zone.

In 1980, the 172d became the first Air National Guard unit to win the John J. Pesch trophy for sustained outstanding performance in flying safety. Also in 1980, the unit received the Hercules, C-130H. In 1986, the 172d received a total of eight C-141B starlight aircraft. 1988 was a big year for the 172d. First, they won the Pesch trophy again. Next, they participated in the airlift at Palmerola Air Base, Honduras. Finally, the 172d 's C-141B was the first Air Guard aircraft to fly to Armenia following a powerful earthquake. From 1989-1990, the 172d flew 21 sorties in support of Operation Just Cause in Panama.

From August 1990 to May 1991, the 172d supported Operation Desert Shield / Desert Storm by flying sorties and transporting cargo. In 1994, the 172d mobilized a C-141B Starlifter crew to help some injured Southern Baptist missionaries in Honduras. In 1995 the 172d Airlift Group was redesignated the 172d Airlift Wing.

In November of 1995, it was announced that six operational C-17 aircraft would be assigned to the 172d Airlift Wing. This new aircraft assignment will require the Jackson ANG to acquire 39 more acres of leased land at the airport, as well as construct new facilities by 2004 to support the C-17 planes.

J7.2 Electric Distribution System Description

J7.2.1 Electric Distribution System Fixed Equipment Inventory

The Jackson IAP, electric distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation, and/or Government ownership currently starts, to the point of demarcation defined by the real estate instruments. Generally, the point of demarcation will be the building footprint. The system may include, but is not limited to, substations, transformers, underground and overhead circuits, utility poles, switches, vaults, and lighting fixtures. The following description and inventory is included to provide the Offeror with a general understanding of the size and configuration of the distribution system. The inventory is assumed to be approximately 90 percent complete. The Offeror shall base the proposal on site inspections, information in the bidders library, other pertinent information, and to a lesser degree the following description. Under no circumstances shall the successful Contractor be entitled to any rate adjustments based on the accuracy of the following description and inventory.

J7.2.1.1 Description

Jackson ANG purchases electricity from Entergy Mississippi, Inc. (EMI). The power is delivered through a single 13.8 kV primary metered source on the west side of the base. The power is then distributed through a combination of overhead and underground lines. The overhead facilities are the maintenance responsibility of EMI, while the ANG maintains the underground lines. The nominal system voltage is 13.8 kV grounded WYE.

The ANG owned underground radial distribution lines serve the base loads. The typical phase conductors used for these lines is #2 AL. Potential load limitations are due to conductor ampacity.

Jackson ANG presently has approximately 4 additional meters at other locations; two are serving reimbursable customers. The meters are presently maintained and read by base personnel. The reimbursable customers are then billed according to monthly consumption plus an O&M fee calculated by the Base Civil Engineer. The payments are forwarded directly to EMI.

The base electrical distribution system consists of a single feeder operated radially. The conductor ampacity limits the amount of load that can be served. This limit is

approximately 4800 kVA on the overhead system. This is adequate to cover the projected demand, including any long-range plans.

J7.2.1.2 Inventory

Table 1 provides a general listing of the major electric system fixed assets for the Jackson IAP (ANG) electric distribution system. The system will be sold in an "as is, where is" condition without any warranty, representation, or obligation on the part of the Government to make any alterations, repairs, or improvements. All ancillary equipment attached to and necessary for operating the system, though not specifically mentioned here in, is considered part of the purchased utility.

TABLE 1
FIXED INVENTORY
Electric Distribution System Inventory – Jackson IAP (ANG)

Item	Size	Quantity	Unit	Approximate Year of Construction
OVERHEAD DISTRIBUTION SYSTEM				
Three Phase Aluminum conductor, SE type SER, 600V	4/0	500	lf	1962
Neutral aluminum conductor, 600 V, SE type SER	2/0	500	lf	1962
UNDERGROUND DISTRIBUTION SYSTEM				
Primary				
Shielded cable, no splice/tmnl, aluminum, XLP, 15kV	#1	8,700	lf	1984
PVC ductbank for AL XLP, 15kV cable, 2 each	4"	2,900	lf	1984
Secondary				
Three Phase Aluminum conductor, type XLPE-USE	500 kcmil	4,000	lf	1984
PVC ductbank for XLPE-USE cable, 1 each	4"	1,000	lf	1984
Transformers				
Three-phase oil-filled, 5kV or 15kV, w/taps, 277/480 V	150 kVA	2	ea	1984
Three-phase oil-filled, 5kV or 15kV, w/taps, 277/480 V	225 kVA	2	ea	1984
Three-phase oil-filled, 5kV or 15kV, w/taps, 277/480 V	500 kVA	3	ea	1984
Manholes, concrete, 6'x10'	7' Diameter	3	ea	1984
Poles, wood,	35' high	5	ea	1984
Pole, light, aluminum, 1 arm bracket	20' high	79		1984
Service meters, 4 wire, including breakers	200 A	4	ea	1984

Notes:
kVA = nominal kilovolt amperes
ea = each
lf = linear feet

J7.2.2 Electrical Distribution System Non-Fixed Equipment and Specialized Tools Inventory

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment and tools. The successful Contractor shall provide any and all equipment, vehicles, and tools, whether included in the purchase or not, to maintain a fully operating system under the terms of this contract.

TABLE 2
SPARE PARTS
Electric Distribution System – Jackson IAP (ANG)

Qty	Item	Make/Model	Description	Remarks
	NONE			

TABLE 3
SPECIALIZED EQUIPMENT AND VEHICLES
Electric Distribution System – Jackson IAP (ANG)

Description	Quantity	Location	Maker
NONE			

J7.2.3 Electric System Manuals, Drawings, and Records Inventory

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4
MANUALS, DRAWINGS, AND RECORDS
Electric Distribution System - Jackson IAP (ANG)

Qty	Item	Description	Remarks
Qtyt	**Item**	**Description**	**Remarks**
1 Set	As Built Drawings		See Base Civil Engineer

J7.3 Current Service Arrangement

Jackson ANG purchases electricity from Entergy Mississippi, Inc. (EMI). The power is delivered through a single 13.8 kV primary metered source on the west side of the base. The power is then distributed through a combination of overhead and underground lines. The overhead facilities are the maintenance responsibility of EMI, while the ANG maintains the underground lines. The nominal system voltage is 13.8 kV grounded WYE.

According to electrical consumption and billing records provided, the usage for FY 98 at Jackson ANG is as follows:

Electrical Usage Data

Peak kW Demand	1,126 kW
Total Annual Consumption	4,704,963 kWH
Average Daily Consumption	12,890 kWH

The billing records included information for 1997 and 1998. Comparison of these records indicate the 1998 peak demand was approximately 05% higher than the 1997 peak demand, and the annual kWH usage had increased approximately 14.2% over the same period.

J7.4 Secondary Metering

The Installation may require secondary meters for internal billings of their reimbursable customers, utility usage management, and energy conservation monitoring. The Contractor shall assume full ownership and responsibility for existing and future secondary meters IAW paragraph C.3.

J7.4.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings once a month for all secondary meters IAW J7.5 below.

TABLE 5
EXISTING SECONDARY METERS
Electric Distribution System – Jackson IAP (ANG)

Meter Location	Meter Description
NONE	

J7.4.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in Table 6. New secondary meters shall be installed IAW paragraph C.13, *Transition Plan.* After installation, the Contractor shall maintain and read these meters IAW paragraph C.3, and J7.5 below.

TABLE 6
NEW SECONDARY METERS
Electric Distribution System – Jackson IAP (ANG)

Meter Location	Meter Description
NONE	

J7.5 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:
Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each

month for the previous month. Invoices shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)
Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall include the following information for Scheduled and unscheduled outages:

Scheduled: Requestor, date, time, duration, facilities affected, feedback provided during outage, outage notification form number, and digging clearance number.
Unscheduled: Include date, time and duration, facilities affected, response time after notification, completion times, feedback provided at time of outage, specific item failure, probability of future failure, long term fix, and emergency digging clearance number.

Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

Meter Reading Report. The monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

J7.6 Energy Savings Projects

IAW paragraph C.3, Utility Service Requirement. The Government has not implemented any projects for energy conservation purposes:

J7.7 Service Area

IAW paragraph C.4, Service Area. The service area is defined as all areas within the MANG, Jackson Area boundaries.

J7.8 Off-Installation Sites

There are no off-installation sites associated with this scope.

J7.9 Specific Transition Requirements

IAW paragraph C.13, *Transition Plan*. **Table 7** lists service connections and disconnections required upon transfer, and **Table 8** lists the improvement projects required upon transfer of the Jackson IAP (ANG) electric distribution system.

TABLE 7
SERVICE CONNECTIONS AND DISCONNECTIONS
Electrical Distribution System – Jackson IAP (ANG)

Location	Description
NONE	

TABLE 8
SYSTEM IMPROVEMENT PROJECTS
Electrical Distribution System – Jackson IAP (ANG)

Location	Description
NONE	